INTERMEDIATE EXAMINATION

December 2013

P–8(CAFM)
Syllabus 2012

Cost Accounting and Financial Management

Time Allowed: 3 Hours Full Marks: 100

The figures in the margin on the right side indicate full marks.

Section A - Cost Accounting (60 marks)

In Section A, Question No. 1 is compulsory. Answer *any three* out of the remaining *four*.

1. Answer the following:

(a) For a department, the standard overhead rate is ₹ 2.50 per hour and the overhead allowances are as follows: 2

Activity Levels (hours)	Budgeted overhead allowances (₹)
6,000	20,000
14,000	36,000
22,000	52,000

Calculate the fixed cost.

(b) The following data relating to a machine is available:
Cost of the machine is ₹ 20,000; Estimated scrap value is ₹ 2,000. Working life = 6 years. The machine had to be discarded at the end of 4 years due to obsolescence and was sold for ₹ 4,000. What is the resultant loss? (Use straight line depreciation on net value). 2

(c) In a workshop the normal working hours is 8 hours for which ₹ 450 is paid as wages. However, calculation of wages payable is made on piece rate basis that 30 pieces will be produced per hour. When a worker produces below standard, 90% of the piece rate is paid but when he produces above standard, 110% of piece rate is paid. On a particular day, a worker produces 260 pieces in the allotted time of 8 hours. What will be his earning? 2

(d) Draw a specimen bin card and appropriately record the following transactions.
01-12-2013 Received from Supplier SW, 80 kg material A, Purchase Price ₹ 20 per kg.
04-12-2013 Issued to assembly 50 kg. of A at ₹ 15 per kg vide requisition No. 313. 2

(e) A concern producing a single product estimates the following expenses for a production period.

	Figures ₹
Direct Material	50,000
Direct Labour	50,000
Direct Expenses	5,000
Overhead Expenses	2,10,000

What will be the overhead recovery rate based on prime cost? 2

(f) State the cost units applicable to the following industries:
Cement, Goods Transport, Education, BPO 2

Please Turn Over

2. (a) The following is an extract of stores ledger of a particular item of stock with incomplete information for October 2013. You are required to fill in the rate column of issues correct to two decimal places. Also fill in the values under the 'Balance column' wherever indicated with a "?". Identify the method of stock issue followed by the company. How would you treat the value of the shortages on 30th October in Cost Accounts? 8

Date	Receipts		Issues		Balance	
October 2013	Quantity (Kg)	Rate (₹/Kg)	Quantity (Kg)	Rate (₹/Kg)	Quantity (Kg)	Value (₹)
1					50,000	1,25,000
7	5,000	2.4				
10			30,000			62,000
15			20,000			
20	15,000	2.6				
25	10,000	2.5				
29			20,000			
30 shortage-abnormal loss			200			?
30 shortage-abnormal loss			400			?
31					9,400	?

(b) In a tailoring shop the standard output of a tailor making collars of a shirt is 20 units per hour for an 8 hour shift. The output of Tailor X for one week is as under:

Day	Units
Monday	150
Tuesday	160
Wednesday	180
Thursday	180
Friday	190
Saturday	200

You are required to calculate the earnings of Tailor X for the week under:

(i) Halsey Premium Plan with a guaranteed wage rate of ₹ 10 per hour and a premium of 60% of the time saved over standard. and 4

(ii) Taylor Differential Rate system with the following rates of payment: ₹ 0.50 per unit at standard and up to 20% over standard, ₹ 0.40 per unit at production below standard and ₹ 0.60 per unit when daily output exceeds standard by 20%. 4

3. (a) From the following information, calculate the machine hour rate for recovery of overhead for a drilling machine installed in a machine shop. 8
   - (i) The machine operates for 8 hours a day and 300 days a year.
   - (ii) 400 hours of machine time in a year is used for repairs and maintenance.
   - (iii) Setting up time of the machine is 200 hours per annum and is to be treated as production time.
   - (iv) Annual cost of repairs and maintenance of the machine is ₹ 40,000.
   - (v) Power used is 10 units per hour at a cost of ₹ 8 per unit. No power is consumed during repair and setting up time.
   - (vi) A coolant is used to operate the machine at ₹ 12,000 per annum.
   - (vii) An operator, whose monthly wages is ₹ 8000, devotes 75% of his time exclusively to operate the machine.
   - (viii) Depreciation is ₹ 2,40,000 per annum and insurance is ₹ 25,000 per annum.
   - (ix) Other indirect expenses chargeable to the machine are ₹ 12,000 per month.

   (b) PC Company purchases a specialized item and the quantity to be purchased is 2500 pieces at a price of ₹ 200 per piece. Ordering cost per order is ₹ 200 and carrying cost is 2% per year of the inventory cost. Normal lead time is 20 days and safety stock is nil. Assume yearly working days as 250. 8
   - (i) Calculate the Economic Ordering Quantity.
   - (ii) Re-order Inventory Level.
   - (iii) If a 2% discount on price is given for order quantity 1250 pieces or more in a lot, should the company accept the offer of discount?

4. (a) The manufacture of each unit of Product X requires 2 kgs. each of raw materials A, B and C. There was no opening stock of any material. The following transactions took place in the production period relating to purchase of raw materials:

   A's supplier charged ₹ 10,000 for 100 kgs. of A. Additionally, insurance was ₹ 600 and the freight to get A to the store was ₹ 800.

   B's invoice price showed ₹ 12,000 charged by the supplier for 100 kgs. Freight was ₹ 800, which was included in the ₹ 12,000. There was no insurance. B had a normal evaporation loss of 10% in transit. A further abnormal loss of 20 kg of B was reported due to a small accident in transit. ₹ 200 was recovered from the transporter.

   C's supplier charged ₹ 15000 for 120 kgs of C. C absorbs moisture on exposure to the outside air and by the time it came to the store, it weighed 150 kgs. This is a normal feature of C.

   Materials were issued to production as per requirement. Compute the material cost per unit of X corrected to two decimal places, using the Generally Accepted Cost Accounting Principles for material cost and giving the break- up of each raw material. 8

   (b) An engineering company produces a standard metallic product. There are three processes – Foundry, Machining and Assembly. 130 tonnes of raw material at ₹ 500 per tonne were issued to Foundry. The yield at the Foundry is 90% (both standard and actual). The normal and actual yield at the Machining Process is 95%. There is no loss in the Assembly Process. You may consider the losses as occurring at the end of the respective processes. The other details are as follows: 8

Process	Direct Labour	Overheads
Foundry	200 hours at ₹ 100 per hour	₹ 150 per labour hour
Machining	100 hours at ₹ 50 per hour	₹ 200 per labour hour
Assembly	100 hours at ₹ 150 per hour	₹ 100 per labour hour

   Prepare a Cost Sheet showing the element wise cost of output and cost per tonne of output.

5. (a) State the treatment of the following items in Cost Accounts:
   (i) Market Research
   (ii) Obsolete inventory
   (iii) Royalty on production of goods. 6

   (b) In a manufacturing company, factory overhead was recovered at a pre-determined rate of ₹ 28 per labour hour. The total factory overhead incurred and the actual labour hours worked for October 2013 were ₹ 3,61,000 and 11200 hours. Out of the ₹ 3,61,000, ₹ 22,400 became payable due to a one time award of a labour court. Out of the 75,000 units produced during the month, 60,000 were sold. 40% of the unrecovered overheads were due to defective planning and the rest was due to increase in overhead cost. Explain with figures how the under absorbed overhead would be treated in cost accounts. 6

   (c) During a month, the following information is obtained from the Personnel Department of a manufacturing company:
   (i) Labour force at the beginning of the month was 1900 and at the end of the month was 2100.
   (ii) 25 people left while 40 were discharged. 280 workers were engaged out of which only 30 were appointed in the vacancy created by the number of workers separated and the rest on account of an expansion scheme.

   Calculate the labour turnover rate by the Replacement and Flux methods. 4

SECTION B - Financial Management (40 marks)

In Section B, Question No. 6 is compulsory. Answer *any two* out of the remaining *three*.

6. Answer the following, showing the workings for each:
   (i) ₹ 25,000 is being invested at the beginning of every year. We are now at the end of year II. Considering a 10% interest rate, what is today's value of the annual investments from year I till and including that of year V? (Take 10% discount factors as:
   1,0.909,0.826,0.751,0.683,0.621,0.564 for year-end 0,1,2,3,4,5,6) 2

   (ii) Perpetual 15% debentures of ₹ 1000 are sold at a premium of 10% with no floatation costs. Taking corporate tax rate at 35%, the after-tax cost of capital will be
   (A) 6.88%
   (B) 7.88%
   (C) 8.86%
   (D) 10.73% 2

   (iii) In 2011-12, XYZ Pharma Ltd. had a profit margin of 20% and asset turnover of 3 times. At the end of year 2012-13, the profit margin decreases by 5% and asset turnover increased to 4 times. The return on investment for 2012-13 will be
   (A) 80%
   (B) 60%
   (C) 50%
   (D) 70% 2

   (iv) Given that Sales = ₹ 50,000, Variable Cost = 60%, Fixed Cost = ₹ 12,000, the operating leverage will be
   (A) 2.2
   (B) 2.0
   (C) 5.2
   (D) 2.5 2

7. (a) The Balance-Sheet of XYZ Ltd. for the year ended 31.03.2013 is given below: 8

Balance Sheet as at 31.03.2013

Liabilities	₹	Assets	₹
Equity Share Capital	5,00,000	Land & Building	1,00,000
Preference Share Capital	2,00,000	Machinery	4,00,000
General Reserve	1,00,000	Furniture	50,000
Secured Loans	3,00,000	Inventory	3,00,000
Sundry Creditors	1,00,000	Sundry Debtors	3,00,000
		Cash/Bank Balances	50,000
Total	12,00,000		12,00,000

Calculate the following ratios from the given Balance Sheet

(i) Current Ratio
(ii) Proprietory Ratio
(iii) Debt-Equity Ratio
(iv) Capital Gearing Ratio

(b) The capital structure of J Ltd. is as under: 8

	₹
Equity shares @ ₹ 10 each	100,00,000
9% Preference Shares @ ₹ 100 each	30,00,000
14% Debentures @ ₹ 100 each	70,00,000

The market price of these securities are:

Equity Shares	35 per share
Preference Share	120 per share
Debentures	110 per debenture

Other information are:

(i) Equity shares have a floatation cost of ₹ 5 per share. The next year's expected dividend is ₹ 3 with annual growth of 5%. The company pays all earnings in the form of dividends.

(ii) Preference Shares are redeemable at a premium of 10%, have 2% floatation cost and 10 year maturity.

(iii) Debentures are redeemable at par, have 4% floatation and 10 per year maturity.

(iv) Corporate tax rate is 30%.

You are required to calculate the weighted average cost of capital using (i) book value weights and (ii) market value weights.

8. (a) A company has received an offer to purchase a new machinery in replacement of the existing one. The cost of the new machine will be ₹ 30 lacs. The supplier has offered to take the existing machine at ₹ 4 lacs.

The new machine will have an expected life of 5 years after which it will fetch a salvage value of ₹ 3 lacs. Currently, the company generates sales revenue of ₹ 40 lacs per annum and earns a contribution of 40% of sales. The new machine will reduce the unit variable cost by 20% and increase the output by 20%. The extra output can be sold. The revenue cash flows may be considered at the end of each year. The company's after tax cost of capital is 14% per annum. The present value factors at 14% at each year end are as follows:

Year	1	2	3	4	5
P. V. factor	0.877	0.769	0.675	0.592	0.519

Based on the Net Present Value criterion, advise whether the proposal is acceptable. Ignore taxation. 8

(b) Write a short note on Commercial Paper in India 4

(c) What a factoring? Explain the concept of full service factoring. 4

9. (a) From the following information, work out the average amount of working capital requirement:

	Average period of credit (in weeks)	Estimate for the year (52 weeks) (in ₹)
Purchase of material	6	26,00,000
Wages	1 ½	20,80,000
Rent	26	1,00,000
Other overheads	8	10,40,000
Salaries	4	13,00,000
Credit sales	8	52,00,000

Average amount of holding of stocks and WIP is ₹ 4,00,000 and there should be cash balance of ₹ 50,000. Assume that all expenses and income are made evenly throughout the year. 8

(b) Answer *any two* of the following:

(i) Classify the following independent items of cash flows under AS-3 4

1. Cash receipts from future contracts held for trading purpose.
2. Cash receipts from repayment of advances to third parties other than a financial enterprise.
3. Cash interest received from by a financial enterprise.
4. Cash received from disposal of fixed assets.
5. Cash receipts from interests in joint venture.
6. Dividends paid by a non-financial enterprise.
7. Cash payments on account of acquisition of a subsidiary.
8. Cash flows arising from taxes on income, not specifically identifiable.

(ii) Write a short note on Foreign Currency Convertible Bonds (FCCBs) 4

(iii) Explain the procedure involved in the 'Forfeiting' Financial Service. 4